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REPORT OF THE COMMITTEE

OF THE

Chamber of Commerce of the State of New-York,

ON

PACIFIC OCEAN TELEGRAPHS,

IN CONNECTION WITH

THE COMMERCE OF THE WORLD.

PRESENTED TO THE CHAMBER, MARCH 2, 1871,

BY MR. SAMUEL B. RUGGLES,

CHAIRMAN OF THE COMMITTEE.

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# Chamber of Commerce of the State of New-York.

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## PACIFIC OCEAN TELEGRAPHS.

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*To the Chamber of Commerce of the State of New-York:*

THE Committee charged with the subject of Telegraphs and Postal Affairs, respectfully

### REPORT:

That the subject of a submarine cable across the Pacific was first brought to the notice of the Chamber by a resolution introduced on the 5th of May, 1870, and duly referred to the Committee for consideration.

That resolution was in the following terms:

*Resolved*, That the Chamber of Commerce of the State of New-York approve of the system of oceanic telegraphic communication, and respectfully ask that Congress may pass, at an early day, such laws as will facilitate the manufacturing and laying of a submarine cable across the Pacific, from the western coast of America to the eastern coast of Asia, thereby completing, with lines now in operation and with those soon to be laid, telegraphic communication around the world.

The Committee having bestowed upon the resolution the careful attention due to the importance of the subject, on the 20th of December, 1870, reported it back to the Chamber, modified and amended as follows:

*Resolved*, That the Chamber of Commerce of the State of New-York regard a well-regulated system of telegraphs, by sea and by land, as a matter of primary importance to the interests of this country and of the world; and respectfully ask that Congress may pass, at an early day, such laws as will, without creating any monopoly, facilitate the laying of a submarine cable across the Pacific

Ocean, from the western coast of America to the eastern coast of Asia, thereby completing, with the lines now in operation, and with those soon to be laid, telegraphic communication around the world.

The resolution in this form having been unanimously adopted by the Chamber, authenticated copies were transmitted by their order to the Senate and House of Representatives of the United States.

In presenting this resolution to the Chamber, the Committee were prevented by want of time from fully stating the facts and considerations which, in their opinion, would justify its passage; in view of which, the Chamber, on the 2d of February, 1871, directed the Committee to embody and to report in writing to the Chamber those facts and considerations, with any further or supplemental information which might be useful.

In the present report the Committee have examined more in detail :

I. The locality and length of the telegraphic lines already established, and of those which are still needed to complete a communication around the globe :

II. The influence of the work, when completed, upon the commerce of the world, and especially the commerce on the Pacific and the Indian Oceans.

The telegraph line when completed will necessarily embrace the  $360^{\circ}$  of longitude encompassing the globe. This great circle is divided in two segments, unequal in length, but each containing a continent and an ocean. The Western embraces the Western Continent and the Atlantic Ocean, extending from San Francisco, in California, to Valentia, in Ireland, over  $112^{\circ}$  of longitude; while the Eastern embraces the Eastern Continent and the Pacific Ocean, extending from Valentia to Shanghai, in China, over  $132^{\circ}$  of longitude, and thence across the Pacific Ocean over the remaining  $116^{\circ}$ , thus completing the entire circle of  $360^{\circ}$ . Of these two segments of this great terraqueous line, the Western, from San Francisco to Valentia, has been finished largely, if not mainly, by the energies of the citizens of the United States. Of the Eastern segment, the portion crossing the Eastern Continent is now nearly completed. Two continuous lines extend eastwardly from Valentia, one inclining to the north through the United Kingdom, Germany, European and Asiatic Russia, to the present temporary terminus at Kiachta, an important Russian entrepot in Eastern Siberia, near the Chinese frontier, in north latitude  $51^{\circ}$ ; while the other pursues a south-

easterly course through France, Austria, Turkey, Persia, and other Asiatic countries, to Bombay, in Hindustan, and thence by way of Ceylon to Singapore, only  $1^{\circ} 30'$  north of the Equator. Kiachta is  $116^{\circ}$ , and Singapore  $113^{\circ}$  east from Valentia. The land line through Turkey and Persia being liable to occasional interruption in regions only partially civilized, a submarine line has also been laid from Italy through the Mediterranean Sea, the Red Sea, and the Arabian Sea, to Bombay.

By the lines above described commercial and other messages are now regularly telegraphed, without interruption, from London to Kiachta and Singapore. The charge from London to Singapore for twenty words and less, is \$33.25 in gold; from New-York to Singapore, \$48.25 in gold, and \$1.50 for each additional word over 10 words. Even at this costly rate, messages are now constantly sent from New-York to Liverpool; four, during the day preceding the date of this report.

Singapore is an important focal point in the commerce of the East. It was established by the British Government, in 1824, and now enjoys a yearly commerce of nearly \$50,000,000. It has lines of steamers running to Hong Kong, (near Canton,) in six days, and also to Batavia, Manilla and other important ports in the East. Through the commercial house of Messrs. A. A. Low & BROTHERS, of New-York, largely engaged in the trade of China and Japan, the Committee have ascertained that the extension of the submarine cable from Singapore to Hong Kong, about 1,400 miles, and thence to Shanghai, about 1,000 miles, is in active progress. By a letter recently received by Mr. CYRUS W. FIELD, and exhibited to the Committee, they are informed that the line from Singapore to Hong Kong will be laid by the 1st of May, and be in actual operation by the 1st of June next. It further appears by *The Overland Mail*, a newspaper published at Hong Kong, that the wire for the line from Hong Kong to Shanghai has all arrived, practically securing its completion within the present year. Induced by political or religious scruples, the Chinese Government has hitherto prevented the laying any telegraphic line on their territory, so that the terminus of the world-encircling line on the Eastern Continent will probably be established for a time in the light-ship at Shanghai, in the estuary of the Yang-Tse-Kiang, the great river of Eastern Asia. At this important point, the junction between the northern and southern lines will be made, through the enterprise of a Danish company, at Hong Kong, now actively constructing a line on land from Kiachta, about 1,400 miles, to the Sea of Japan, to be extended by a line under its waters, about 1,000 miles, to Shanghai.

The completion of these lines on the Eastern Continent, in connection with the lines now established in the Atlantic and upon the Western Continent, will afford to the merchants of the United States, without any line across the Pacific, the means of telegraphic communication, not requiring more than three days at the utmost, with every important commercial port in the civilized world north of the equator. Similar facilities will soon be extended to the Southern Hemisphere by the Australian branch, leading southeastwardly from Singapore, across Sumatra, Java and other islands of the great Eastern Archipelago, or along their coasts, into Australia, as far as Melbourne, in  $37^{\circ}$  south latitude, with a total length exceeding 3,000 miles. The Committee are informed by Mr. MILLER, of the Royal Mint of Australia, and now in the United States, that this Australian line will be completed to Singapore within the present year.

It must, nevertheless, be evident that the very circuitous communication from New-York, and still more from San Francisco to Eastern Asia, by way of the Western Continent, the Atlantic Ocean and the Eastern Continent, with its necessary stoppages under the best administration, must always be far more costly and dilatory than a communication by a single independent line leading directly across the Pacific, saving in distance at least ten thousand miles, and transmitting a message from San Francisco to Shanghai in ten minutes. Its peculiar value in war, as an organ of the Government, in properly directing naval operations in those distant waters, can hardly be over-estimated. We should also bear in mind, that with telegraphic lines under both the Atlantic and the Pacific Oceans, each will connect the two continents, so that any interruption in one of the oceans may be remedied by the working of the line in the other.

A far higher public necessity for a line directly across the Pacific is found in the fact, that the whole of the American Continent, over which it would be extended to the Atlantic and thence to Europe, is subject to the sole political rule of the United States, or of the adjacent maritime Provinces of British America. The populations of these English-speaking portions of the world would be fully able, if consolidated by political union or allied by proper treaties, to protect the line, whether on the land or in either of the oceans, from any hostile interference; while, on the other hand, the line laid on the Eastern Continent, occupying the territory of numerous nations of Europe and Asia, widely differing in language, civilization and forms of government, will be necessarily

exposed to capricious and arbitrary interruption, if not to violent aggression.

Two telegraphic lines under the Pacific have been suggested to the Committee, one commencing at San Francisco, in latitude  $37^{\circ}$ , and deflecting southwardly to the Sandwich Islands, in latitude  $20^{\circ}$ , and thence inclining northwardly, by way of the Midway Island, in latitude  $27^{\circ}$  north, to Yokohama, in Japan, in latitude  $35^{\circ}$  north, and thence southeasterly to Shanghai, in latitude  $32^{\circ}$ . Its length will be 5,480 nautical miles from San Francisco to Yokohama, and from Yokohama to Shanghai 1,035 miles, in all 6,515 nautical miles. The other and more northern line will extend from San Francisco along the coasts of British Columbia, Alaska and the Aleutian Islands to the eastern coast of Japan, and thence to Shanghai.

At the request of the Committee, the Professor of Mathematics and Astronomy in Columbia College, Mr. WILLIAM G. PECK, has accurately measured on the globe the linear extent of the "great circle" passing through San Francisco and Yokohama. His letter, appended to this report, states it to be 4,450 nautical miles. The circle passes within 200 miles southward of the Aleutian Islands, now belonging to the United States; on one of which, lying nearly midway on the route, the cable, if necessary, might be landed, without increasing the total distance more than 50 miles. The link in the chain from Yokohama to Shanghai, 1,035 miles in length, is common to both the northern and the southern routes.

It is not the province nor the wish of the Committee, nor would they recommend to the Chamber, to pass any judgment on the comparative merits of these rival lines proposed for the Pacific cable, nor to anticipate any question in respect to its construction, whether directly by the Government or indirectly through subsidies to incorporated companies. They would only insist on the vital importance of keeping any and every telegraphic line, under the Pacific or any other ocean or sea, as far as possible, free from any exclusive privilege or monopoly. The oceans and seas were created for the common use of man, and should not be exclusively appropriated by any individual, or any particular nation or race.

It is within the last sixty years, that the genius of FULTON, in ascending the Hudson River with a steamboat in 1807, was rewarded, however inadequately, by a grant from the State of the monopoly of the waters of that important channel of navigation, which obstructed its commerce until the year 1824, when the unlawful impediment was swept away by the supreme judicial power of the American Union. It would be strange indeed, if the Union should

now so far forget its own international moral duty as a member of the common family of nations, as to monopolize in any manner, or to any extent, the common oceanic highway between America and Asia.

THE INFLUENCE OF A PACIFIC OCEAN CABLE ON THE FOREIGN  
COMMERCE OF THE WORLD.

The peculiar value and efficiency of a world-encircling telegraph in developing and regulating the commerce of the globe become still more evident, in view of the immense and constantly increasing amount of that commerce; and especially when we consider the intimate relation of the commerce of every portion of the world to the commerce of the whole.

It will be the exalted office of such a telegraph to diffuse through all the markets of the world daily, and if need be, hourly information of the current prices of all commercial commodities, with the amount and condition of products and cargoes. This annihilation of commercial distance will render the trader practically omnipresent. With the constant stream of telegraphic information, pointing out from day to day the exact degrees of demand and supply—the vital elements of price—commerce, no longer consisting of the “adventures” inscribed on the merchant’s ledger, will become an exact science, precisely determining every commercial movement containing the elements of profit.

Nay, more. Such a telegraph will cement still more firmly that all-pervading unity of commerce known in modern phraseology as its “solidarity.” Differing only in degree from “internationality,” which regards nations as forming one “common society,” the term “solidarity,” as applied to their commerce, denotes the absolute unity resulting from the community of interest where the commerce of each, forms a part “*in solido*” of the commerce of the whole.

This solidarity brings with it correlative rights and duties, with their consequences. Every facility afforded to any portion of the world of commerce enures to the benefit of the whole, while every impediment in any portion, whether interposed by nature or unwise legislation, injures the whole. Cheap and rapid transportation, which has already increased so largely the wealth of modern nations, is now the common *desideratum* of the commercial world. Every day and every penny saved in transporting a chest of tea through the Indian or the Pacific Oceans, is felt in its diminished price in the markets of Chicago, Hamburgh or St. Petersburg. Every day and every cent saved in transporting a barrel of flour over any canal or

railway in the United States, facilitates its sale in Havana, Liverpool or Canton. Like the life-blood in the human frame, ever ministering to the needs of all the members, the genial and vital stream of commerce, unchecked by needless obstruction, circulates through the globe, animating and strengthening all the nations, while the telegraph, the very brain of the commercial system, supplies the nervous energy which directs and guides the whole.

This universality or "catholicity" of commerce, so to speak, is no new idea in the New-York Chamber of Commerce. On the contrary, it has been the polar star guiding the institution from the very moment of its corporate existence. It shines out clear and bright, in the emphatic language of the Royal Charter granted during the Colonial era, in 1770, and fully confirmed by the State Government in 1784, proclaiming that "numberless inestimable" blessings had accrued to *mankind* from commerce," and investing the Chamber with full power "to encourage and promote, by just and lawful ways and means, such measures as will tend to promote and extend just and lawful commerce."

So far from breathing any local spirit which would confine the field of inquiry or action of the Chamber to the mere island of Manhattan, or within any narrow provincial limits, the charter broadly avows the comprehensive and wise design of the British Crown, "to give stability to an institution from whence great advantages may arise, not only to our said Province, but as well to our Kingdom of Great Britain," that Imperial Dominion, which even then had encompassed with its widespread dependencies the whole world of commerce. Under such instruction the Chamber has ever been impressed, and now more than ever, with the fundamental and pregnant truth, that the foreign commerce of the port of New-York is not local, but cosmopolitan, constituting no isolated independent unit, but an inseparable integral portion of the vast foreign commerce of the globe, morally united by one common bond of interest.

The practical importance of this view is obvious, when we find that the whole yearly commerce of the United States (being \$849,793,476 in 1868, of which the port of New-York had \$498,623,192) now constitutes hardly one-tenth of the foreign commerce of the world.

#### AMOUNT OF FOREIGN COMMERCE AND ITS PROGRESS IN THIRTY YEARS.

In collecting the facts needed for showing the total foreign commerce of the civilized nations, the Committee have endeavored also

to ascertain, as far as practicable, its progress during the thirty years ending with 1868, that being the latest year for which official tables were accessible.

The period thus selected is one of pre-eminent importance, embracing the truly golden age of commerce, in which steam more fully enlisted in the service of man, won its greatest victories over the land and the sea, vastly augmenting the commercial dynamics of the globe, not only in accelerating and cheapening the transportation of the products of interior regions to the seaboard, but in practically bridging the oceans themselves and conjoining the continents.

It was not until the autumn of the year 1838, that the first ocean steamer found its solitary way across the Atlantic. At the close of 1868, large fleets of steamers, much exceeding in capacity the sailing vessels of the mercantile marine, and swiftly impelled by this superadded power, covered all the seas and oceans.

Up to the year 1838, only 1,497 miles of railway had been constructed in North America, and furnished only with feeble engines drawing slender loads. At the close of 1868 there were in operation, with engines doubled in speed and quadrupled in power, 44,802 miles in North America, 56,660 miles in Europe, 4,474 in Asia, (principally in British India,) 1,424 in South America, 789 in Australia, and 583 in Egypt and other parts of Africa, exhibiting a total development in the civilized world of 109,177 miles, of which at least 100,000 were brought into use since 1838, with their enormous apparatus of steam locomotive engines counted by tens of thousands, untiringly laboring by day and by night in transporting and exchanging the vast and varied products of the globe.

It was on the 27th day of February, in the year 1844, that M<sup>ORSE</sup> sent his first telegraphic message by electricity, 41 miles, from Washington to Baltimore, uttering with characteristic and solemn emphasis his grateful ejaculation, "What hath God wrought!" At the close of 1868, as stated to the Committee by Mr. GEORGE B. PRESCOTT, the electrician of the Western Union Telegraph, there were 130,698 miles of electrical telegraphic line in operation in the United States, 90,000 miles in Great Britain, and 405,151 miles in Continental Europe, with 27,402 miles of submarine cable in the various seas and oceans, having a total linear extent of 572,183 miles, exceeding more than twenty fold the circumference of the earth.

It was not until 1866 that the noble perseverance of FIELD and his associates, after arduous and repeated efforts, practically established for commercial purposes their cable in the bed of the Atlantic.

These splendid triumphs over the obstacles of nature within the brief period of thirty years under review, superadding to the pre-existing forces in use by man a power, equivalent to that of twenties, if not fifties, of millions of human laborers, have necessarily caused an immense expansion in the commerce of the globe. They afford the only adequate explanation of the enormous, and almost incredible realities disclosed by the official statistics, exhibiting an increase in the foreign trade of the three leading commercial nations exceeding more than tenfold their increase in population within the same period; and a rate of increase more than half as large in the foreign commerce of the remaining nations.

Summed up in brief, the population and foreign commerce of the United Kingdom of Great Britain and Ireland, of France, and of the United States of America, respectively increased as follows :

| POPULATION.  |            |            |             |
|--|------------|------------|-------------|
|  | In 1838.   | In 1858.   | In 1868.    |
| The United Kingdom, ..                               | 25,903,697 | 28,389,770 | 30,380,757  |
| France,.....   | 33,738,188 | 36,236,322 | *38,342,818 |
| The United States,.....                              | 16,025,761 | 29,568,110 | 36,500,000  |
|  | 75,667,646 | 94,194,202 | 105,223,575 |
| Increase in 30 years, 29,555,950, being 39 per cent. |            |            |             |

| FOREIGN COMMERCE.                                       |                 |                 |                 |
|---|-----------------|-----------------|-----------------|
| [Computing £1 at \$5, and \$1 at five francs.]          |                 |                 |                 |
|   | In 1838.        | In 1858.        | In 1868.        |
| The United Kingdom, ..                                  | \$541,605,515   | \$1,521,833,055 | \$2,616,570,415 |
| France,.....  | 378,895,720     | †945,080,000    | ‡1,595,820,000  |
| The United States,.....                                 | 222,504,020     | 607,257,571     | 849,793,476     |
|   | \$1,143,005,255 | \$3,074,170,626 | \$5,062,183,891 |
| Increase in 30 years, \$3,919,178,636, or 443 per cent. |                 |                 |                 |

It will be seen that the rate of this immense increase was highest in the two first decades, from 1838 to 1858, commencing with the earliest developments of this superadded steam power on the land and the sea, during which the amount was carried up, in round numbers, from \$1,143,000,000 to \$3,074,000,000, being nearly 270 per cent., or 9 per cent. yearly for the twenty years. In the last decade, from 1858 to 1868, when the new impulse had partially spent its power, the rate of increase so far slackened, that the total of 1858, \$3,074,000,000, rose only to \$5,062,000,000 in 1868, not quite 60 per cent., or 6 per cent. yearly.

\* Including 744,249, annexed in Nice and Savoy.

† By sea, \$678,000,000 ; by land, \$266,000,000.

‡ By sea, \$1,070,000,000 ; by land, \$525,000,000.

This diminution of rate in the last decade shows the necessity of caution in any prospective estimate of the increase in the future. While, on the one hand, a still further development of the powers of steam and electricity may stimulate still more actively the production and transportation of the world, we are compelled by recent experience in both hemispheres to take into account the possibility, to say the least, of exceptional interruptions and retardations by war, and the supreme national necessities which it may involve. In view of those contingencies, it would hardly be safe to assume that the rate of six per cent. yearly increase exhibited by the last decade will continue undiminished throughout the remaining thirty years of the present century, carrying up the existing amount, as it would at 180 per cent. in the three nations, to \$14,170,000,000. A more cautious estimate, at 3 per cent. yearly, would carry the amount only to \$9,112,000,000.

The Committee make no predictions in respect to the future, but merely state the preceding sums as the arithmetical results of the two different rates of increase. They rest content with the \$5,062,183,891 actually existing in 1868, and with the increase in the foreign commerce of the United States to \$991,896,889 in 1870, from \$849,793,476 in 1868, as sufficing to show the transcendent importance of establishing and maintaining between these three maritime nations a wise and thorough concord, which shall at least secure the telegraphic cables in the oceans from any hostile aggression.

It may also be reasonably expected, that the large and steadily increasing foreign commerce of the remaining and more interior nations of Europe, the major portion of which is on the sea, will lead their enlightened rulers to similar views of the necessity of peace, as affording to maritime commerce its only effectual security.

The Committee have used their best efforts without success, to obtain official tables showing the commerce of these remaining nations and its progress in tabulated form, with the precision which has been attained with respect to the three maritime nations. Some of the Continental countries make no official returns of their exports, while the estimates of some of the others are in a measure conjectural.

During the last twenty years repeated efforts have been made by the public authorities and writers in France and elsewhere to tabulate the foreign commerce of the world, the general results of which have not differed very widely. After carefully comparing the varying estimates by the British Board of Trade, the United States Bureau of Statistics, the "*Dictionnaire du Commerce*," and other statistical works in France, aided by the results annually condensed

from official tables in the "*Almanac de Gotha*," the Committee submit the following summary to the Chamber as an approximate for the years 1860 and 1868, sufficiently accurate for the present purpose. Disregarding fractions of a million, the foreign commerce of those nations was as follows :

|  | Population. | Foreign Commerce. |                 |
|--|-------------|-------------------|-----------------|
|  | In 1868.    | In 1860.          | In 1868.        |
| Germany,.....                                  | 38,768,000  | \$550,000,000     | \$756,000,000   |
| Netherlands, .....                             | 3,616,000   | 360,000,000       | 377,000,000     |
| Belgium, .....                                 | 4,901,000   | 210,000,000       | 304,000,000     |
| Denmark, Sweden and Norway,.                   | 7,779,000   | 125,000,000       | 138,000,000     |
| Russia,.....                                   | 69,884,000  | 252,000,000       | 337,000,000     |
| Austria, .....                                 | 35,449,000  | 187,000,000       | 340,000,000     |
| Italy, ....                                    | 25,585,000  | 250,000,000       | 316,000,000     |
| European Turkey, Roumania and<br>Serbia, ..... | 16,328,000  | 130,000,000       | 140,000,000     |
| Greece,.....                                   | 1,375,000   | 16,000,000        | 16,000,000      |
| Spain and Portugal, .....                      | 20,884,000  | 140,000,000       | 187,000,000     |
| Switzerland,.....                              | 2,517,000   | 120,000,000       | 1,000,000       |
|  | 227,086,600 | \$2,340,000,000   | \$3,691,000,000 |

Increase, 32 per cent. in 8 years, or 4 per cent. yearly.

In any estimate of the future growth of the foreign commerce of these Continental nations, now amounting to \$3,091,000,000, it should be remembered that the superaddition of steam transportation, in fostering the growth of their commerce in the past, was, in proportion, far less than in France and the United Kingdom. With an aggregate population of 227,000,000, occupying a territorial area more than tenfold that of France and the United Kingdom, they had, up to 1869, only .37,000 miles of railway; while France and the United Kingdom, with a population of only 69,000,000, had in operation more than 24,000 miles, nearly completing all the important portions of their railway systems. The continental nations still have left large interior regions, affording very extensive fields for future development, especially in connection with the inland seas giving them access to the Atlantic. They are, moreover, using active efforts to increase their maritime commerce and naval force, as fundamental elements of their political strength.

It certainly is not impossible that, under these influences, the rate of increase in their foreign commerce may, for some time to come, fully keep pace with that of France or the United Kingdom. At the yearly rate of only 2½ per cent., the existing amount would increase to \$5,322,000,000 in the thirty years ending with 1898.

## COMMERCE OF AMERICAN NATIONS.

In respect to the countries, other than the United States, in North and South America, including the West Indies, the Committee have been able to obtain reliable statistics only from a portion of their number. Some of them keep no accurate tables of exports, while the commerce of others is stated in quantities and not in values. The aggregate of the commerce of the West Indies, a subject of direct and constantly increasing interest to the United States, can only be ascertained with accuracy from the official tables kept by the various nations trading with the islands. As the amount thereby deduced (\$282,897,306) falls very considerably short of the amount (\$420,580,919) estimated in the official report published in 1866, at Ottawa, by the Commissioners from British America for ascertaining the trade of the West Indies, some further examination may be proper. The Committee, therefore, ask leave hereafter to submit to the Chamber any supplemental statement which may be needed, for correcting any material error which may be discovered.

Subject to this reservation, the Committee believe that the following summary will not vary materially from the actual amounts :

| 1868.   | Exports and<br>Imports. |
|---|-------------------------|
| "Dominion of Canada," (not including Newfoundland or Prince Edward's Island,) ..... | \$129,533,194           |
| Mexico, only partial returns, (estimated,) .....                                    | 27,000,000              |
| Central America,.....   | 11,292,000              |
| New-Grenada or Colombia, .....  | 11,018,000              |
| Venezuela, no returns, (estimated,) .....   | 10,000,000              |
| Brazil, .....   | 160,133,721             |
| Argentine Republic, .....   | 63,650,000              |
| Chili, .....  | 55,500,000              |
| Uruguay, Peru, Bolivia and Ecuador, only partial returns, (estimated,).....         | 40,000,000              |
| <i>West Indies</i> .—Cuba and Porto Rico,.....                                      | \$174,050,279           |
| British West Indies,.....   | 60,756,022              |
| Hayti and San Domingo,.....   | 22,691,005              |
| Other West India Islands,.....  | 25,000,000              |
|   | 282,497,306             |
|   | \$790,624,221           |

The statistics of many of these nations and countries, owing mainly to the frequent and violent changes in their political condition, are too fragmentary to furnish the means of showing, with any approach to accuracy, the increase of their commerce in the past.

The singular mutations of commerce, under political changes, are strikingly manifest in a portion of the West Indies. The "Tableau" of Commerce, of the year III. of the first French Republic, states that, in or shortly before the year 1792, the commerce of France with San Domingo amounted to *two hundred and seventy-one* millions of *livres*, \$54,200,000; and that its commerce with the United States amounted in that year only to *thirty-one* millions of *livres*, \$6,200,000.

The "Exposé Comparatif" of France shows that in 1867 its commerce with Hayti was only \$6,420,000, while its commerce with the United States was \$70,200,000.

#### GENERAL RESULT.

It results from the preceding examination that the total foreign commerce of the European and American nations, in which is included all their commerce with the Asiatic countries, consists as follows:

|   |                 |
|---|-----------------|
| Commerce of the European nations, ..... | \$7,203,390,415 |
| "    "    American    "    .....        | 1,640,822,697   |
|   | <hr/>           |
|   | \$8,844,213,112 |

Of this total, a little more than one-tenth consists of commerce with countries and localities more or less civilized, in Asia, Africa and Oceanica, which have no commercial tables, or none which are accessible, and consequently are not included in the statement of nations exporting and importing. That portion is stated from the returns of the nations trading with those countries, and represents an actual movement of commodities of like value. Of the remainder, assumed to be nine-tenths, the value of the commodities actually moved is only one-half; for the reason that the commodities tabulated as "Exports," in the tables of any nation exporting, re-appear as "Imports" in the tables of the nation or nations to which the commodities are exported, whereby the values are duplicated. This being the case, the aggregate value of the commodities actually moved is,

|   |                 |
|---|-----------------|
| One tenth of the \$8,844,213,112, or .....                | \$884,421,311   |
| And one-half of the residue, \$7,959,791,801, being ..... | 3,979,895,901   |
|   | <hr/>           |
|   | \$4,864,317,212 |

Although the Committee have confined their examination to foreign commerce, it should be borne in mind that the proposed Pacific Ocean Telegraph will also exert a beneficial influence on the coasting trade of many of the nations. This is specially true in respect to the United States, with its long lines of coast on the

Atlantic, the Gulf of Mexico and the Pacific, requiring in the coasting trade with the Pacific, the circumnavigation of the continent of South America, passing for more than ten thousand miles along the coasts of foreign nations.

It is much to be regretted that no official account has yet been kept by the United States, nor by any other maritime nation, (as the Committee believe,) of the values of the property moved in their coasting trade. Its amount in the United States undoubtedly far exceeds, and in the United Kingdom probably approaches, if it does not exceed, the total values actually carried in their foreign commerce.

#### COMMERCE OF THE PACIFIC AND INDIAN OCEANS.

The Committee have deemed it necessary to ascertain and to state somewhat more in detail, the amount of the commerce of the European and American nations on the Pacific and Indian Oceans. Forming a part of the total above exhibited, it has a peculiar interest, not only in being primarily and directly connected with the proposed Pacific Telegraph, but in being closely interwoven with the commerce of every other portion of the civilized world, and the daily necessities of all its varied population.

These great oceans have played and will continue to play a very important part in the great drama of commercial progress, emphatically the epic of the modern ages. The history of Eastern Asia, covering an epoch of nearly four centuries since VASCO DE GAMA doubled the Cape of Good Hope, is filled with the lights and shadows of one long struggle of the maritime nations of Europe to secure, and as far as possible to monopolize, the trade of that fertile and fragrant portion of the globe. The rich products of the Spice Islands under the burning sun of the equator, repeatedly became the scene of cruel war between cold-blooded trading nations on the Northern Ocean; while the field of bloody struggle in Hindustan extended from the groves of Ceylon to the frozen summits of the Himalayas. The long-continued conflicts in these remote regions of the earth were not solely for commerce, but often for empire, intermingling with the broader struggles at home for the mastery of Europe. Within the present century, we have seen the navy of England, in defending and preserving not only her national existence but the liberties of the world from the tyranny of the first NAPOLEON, sweeping the commerce of his empire from every ocean of the globe to the utmost bounds of these distant waters, so that in 1807, in the vivid language of a writer of the day, "not a single merchant ship

bearing a hostile flag could be seen traversing the Atlantic or crossing the equator." As late as 1811, at the height of the fearful struggle on the land, the magnificent island of Java, the Cuba of the East, which had shared the fate of Holland, was wrested by England from the grasp of France. Restored on the pacification of Europe to its former owner, it still remains a precious remnant of the maritime and commercial power enjoyed in the palmy days of the Dutch Republic.

The struggle of centuries for the possession of Continental India, between Portugal, Spain, Holland, France and England successively contending for the prize, has practically closed with the lion's share falling to our ancestral England, apparently to be held, with the English-speaking continent of Australia and the outlying islands of New-Zealand, with their rapidly increasing commerce, only for a future and friendly competition, on a far broader scale, with the inheritors of her blood in the United States. It surely is not the least among the wonder-working effects of steam in navigating the land with a speed far surpassing that on the sea, that the railway now spanning our continent, with its electrical auxiliary in the Pacific, will bring the American Union into the close proximity needed for such a competition.\*

The statistics of the commerce of the nations of Europe and America on the Pacific and the Indian Oceans, and its distribution among those nations, will fully appear, with some particulars of its past progress, in the table appended to this report. Summed up in brief, the commerce on those waters of the

|   |               |
|---|---------------|
| United Kingdom, in 1868, was.....   | \$565,106,665 |
| France, " .....   | 59,340,000    |
| The United States, " .....  | 47,656,885    |
| Netherlands, " .....  | 51,500,000    |
| Hamburgh and Bremen, " .....  | 9,328,000     |
| Spain, " .....  | 1,750,000     |
| Sweden and Norway, " .....  | 460,000       |
|   | <hr/>         |
|   | \$735,141,550 |
| The overland "Transbaikal" commerce of Russia with China,<br>in 1867, was 11,300,000 roubles, or..... | 9,040,000     |
|   | <hr/>         |
|   | \$744,181,550 |

\* Of the Anglo-Indian Empire, the islands of New-Zealand lie 1,400 miles east of Australia, and so much the nearer to the coast of the United States. They had 1,611 miles of telegraphic line in 1869, which must ere long be connected with Australia.

In addition to the interchanges effected by the preceding commerce between the European and American nations and the countries of Asia, there is now a large coasting commerce in the Indo-Chinese Basin. Of this "home trade," so to speak, a small portion employs the vessels of the Asiatic countries, while the residue is enjoyed by European vessels, principally from the Hanseatic Cities, interchanging the products of Japan and China with those of British India and the Australasian Archipelago. Like the coasting trade of the Atlantic nations, it serves to swell the total commerce interested in the completion of the Pacific cable.

From the detailed statements in the table, the following general facts will appear:

1. Of the commerce of Europe and America with Asia,  
on the Pacific and Indian Oceans, being in 1868, \$735,141,550  
the three maritime powers, the United Kingdom,  
France and the United States, had..... 672,103,550
2. Their commerce on those oceans in 1854 was.... 330,079,742  

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showing an increase in the 14 years of ..... \$342,023,808  
being 103 per cent., or 7.35 per cent. yearly.
3. From the proportion of exports to imports shown by the tables  
of the three nations, we may safely estimate, that of the total  
commerce of \$735,141,550, the exports to the Asiatic countries  
did not exceed \$300,000,000, so that the imports from these  
countries were at least \$435,141,550.
4. Of the last named amount, Australia and New-Zealand fur-  
nished \$62,942,240, and the more tropical countries of Asia  
the remaining \$372,199,310.

It is this latter portion which imparts to the commerce on the Pacific and Indian Oceans its peculiar interest, embracing the tea, the coffee, the sugar, the spices, the silk, the drugs, and the various other products of the tropics, which, in the progress of civilization, ceasing to be luxuries, have become necessities for the three hundred and twenty millions of Christian people, now occupying the temperate zone of Europe and North America. Intended for the consumption of such a multitude, these tropical products are concentrated, in large masses, in the capacious docks or warehouses of London and Liverpool and Havre and Antwerp and the Hanseatic Cities, to be thence distributed through the world by the united machinery of its common commerce, permeating and interpenetrating every artery and vein of human society.

It surely requires no great stretch of imagination or credulity to believe that a commerce so beneficent and civilizing, in a world like ours filling up with people so rapidly, is destined to large and speedy increase, especially if wisely aided by our national government. It is not for the clear-headed, far-sighted merchants of the United States to close their eyes upon the fact that, in the providential march of events, a field so vast is just opening to their well-directed energy. Still less will they fail to bear in mind, that "cheapness, the sovereign law of commerce, overcoming national prejudices and national habits," will inexorably compel the products of every portion of the globe, and especially of its remoter regions, to take the shortest and cheapest way to market; that the distance, by sea and land, from the coast of China to the Mississippi River, by way of the Pacific Ocean, is less than one-third of the distance by way of the Atlantic; and that, as a necessary result, San Francisco, our own Pacific emporium, with her spacious warehouses soon to cluster around the "Golden Gate," will become the mart for largely supplying, at least a portion of our widespread interior, with the products of Eastern Asia. The commercial tables show the breadstuffs of California actively entering on their great predestined duty of supplying the daily necessities of China, Japan, Australia and New-Zealand; laying the foundation of a commerce of the highest importance to both the continents. The diplomatic wisdom of our timely treaty with Japan is now plainly evident, not only in the steadily increasing commerce between the two countries, but in the cordial diplomatic relations now fully established with the government of that intelligent and active nation.

It is for the statesman rather than the merchant to look out afar upon the coming ages, and discern the immense eventualities of these great tropical waters, once so remote, but now coming so plainly within the legitimate field of action of our young and growing Republic. The Committee will not attempt to lift the veil of the majestic future, nor seek in any way to measure or estimate the enormous stream of commerce and intercourse which must flow from intimate and friendly relations with the vast populations now accumulated in Eastern Asia. They will venture to hope that the existing commerce of the world, exhibited as one undivided whole, will be sufficient, in the eyes of the Chamber, to justify an earnest recommendation to the Government of the United States, to adopt vigorous measures, without delay, for connecting the continents of America and Asia by a submarine electric Telegraph, to be laid in such portion of the Pacific as may complete a line encircling

the globe, and best subserve the interests of our country and the world.

The American Union, in its gradual but steady aggregation of empire, already possesses a water front on the Pacific, in two disconnected portions, embracing, taken together, twenty-eight degrees of latitude, and separated only by that portion still belonging to British America, extending from latitude  $49^{\circ}$  to latitude  $54^{\circ} 40'$ , a parallel not wholly unknown in our political history.

On the opposite shore of the Pacific, the British Empire has acquired, by treaty or otherwise, territorial rights to some extent in or near some of the maritime cities of China, which may greatly facilitate the connection of the Pacific cable with the segment of the world-encircling line laid upon the Eastern Continent or under its adjacent waters. It will be providential, indeed, if the facilities thus enjoyed by the two nations, with their widespread territories on this broad ocean, shall lead them, at a moment like the present, when lasting concord is the prayer of every patriotic heart, to unite in completing the great achievement of our age, to be consecrated to Peace forever.

SAMUEL B. RUGGLES,

*Chairman of the Committee.*

CHAMBER OF COMMERCE,

*New-York, March 2d, 1871.*

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At the regular monthly meeting of the Chamber of Commerce of the State of New-York, on the 2d of March, 1871, the following resolution, offered by Mr. SAMUEL B. RUGGLES, Chairman of the Committee on Telegraphs and Postal Affairs, was unanimously adopted :

*Resolved,* That Canals, Railways and Telegraphs form part of one common system of commercial machinery for facilitating and cheapening the commerce, interchanging, between nations, the varied products of the globe, in which any facility afforded to any part benefits the whole ; and that any needless imposition of tolls, expenses or other charges on any part of that system, is the fruit of a policy unfit for the present enlightened age, and injurious to the general welfare and advancing civilization of the human race.

## APPENDIX No. 1.

LETTER FROM MR. WILLIAM G. PECK, PROFESSOR OF MATHEMATICS,  
&C., REFERRED TO IN THE PRECEDING REPORT.

COLUMBIA COLLEGE,  
*New-York, January 21, 1871.*

DEAR SIR:

I have examined the globe, and find that the "great circle," through San Francisco and Yokohama, passes considerably less than 200 miles to the southward of the Aleutian Islands. This makes the route by these islands but little longer than by the great circle. I find on my globe, an island marked Belschevinskoi, that is almost equi-distant from San Francisco and Yokohama. This island is in latitude  $52^{\circ}$  and longitude  $170^{\circ}$  W. By measurement on my three foot globe, I find the following distances, which are not very far from true:

|   |       |                 |
|---|-------|-----------------|
| 1st. San Francisco to Yokohama, great circle, | 4,450 | nautical miles. |
| 2d. San Francisco to Belschevinskoi,          | 2,235 | " "             |
| 3d. Belschevinskoi to Yokohama,               | 2,265 | " "             |
| Total,.....                                   | 4,500 | " "             |

This gives but 50 nautical miles difference by the two routes.

I am, sir, yours very truly,

WM. G. PECK.

Hon. S. B. RUGGLES,

*Chairman of Committee of Chamber of Commerce, N. Y.*

## APPENDIX No. 2,

REFERRED TO IN THE PRECEDING REPORT.

COMMERCE OF EUROPEAN NATIONS AND OF THE UNITED STATES  
ON THE PACIFIC AND INDIAN OCEANS.

## I. THE UNITED KINGDOM OF GREAT BRITAIN AND IRELAND.

| COUNTRIES.                                   | In 1854.    |                    | In 1868.    |               |
|--|-------------|--------------------|-------------|---------------|
|  | Exports to. | Imports from.      | Exports.    | Imports.      |
| Mauritius, .....                             | £401,146    | £1,677,533         | £391,106    | £1,061,999    |
| British India, .....                         | 9,620,710   | 10,672,862         | 22,253,231  | 30,071,866    |
| Ceylon, .....                                | 413,504     | 1,506,646          | 869,257     | 3,671,484     |
| Singapore and Straits'<br>Settlements, ..... | 590,418     | 794,105            | 1,571,660   | 2,050,163     |
| Hong Kong, .....                             | 478,293     | (Inc. with China.) | 2,274,024   | 235,804       |
| Java and Sumatra, ...                        | 641,912     | 214,384            | 871,460     | 75,290        |
| China, .....                                 | 548,823     | 9,125,040          | 6,426,010   | 11,481,565    |
| Japan, .....                                 | .....       | .....              | 1,254,483   | 181,222       |
| Philippine Islands, ...                      | 354,972     | 652,158            | 994,199     | 1,824,795     |
| Australia and New-<br>Zealand,* .....        | 13,405,986  | 4,301,868          | 12,815,375  | 12,571,423    |
| French Possessions, ..                       | .....       | 56,982             | 2,074       | 72,593        |
|  | £26,455,764 | £29,001,578        | £49,723,079 | £63,298,254   |
| Exports, .....                               | .....       | 29,001,578         | .....       | 49,723,079    |
| Exports and imports, .....                   | .....       | £55,457,342        | .....       | £113,021,333  |
| “ “ “ .....                                  | .....       | \$277,286,710      | .....       | \$565,106,665 |

\* The official "Statistics of New-Zealand," just received at the Chamber of Commerce, New-York, state its total

|                                   |            |              |
|-----------------------------------|------------|--------------|
| Imports in 1869 at .....          | £4,976,126 |              |
| Exports, " .....                  | 4,224,860  |              |
|                                   |            | \$46,904,835 |
| Imports from United States, ..... | \$345,545  |              |
| Exports to " .....                | 63,995     |              |
|                                   |            | \$409,540    |

## II. FRANCE.

| COUNTRIES.                                      | In 1853.    |               | In 1867.     |              |
|---|-------------|---------------|--------------|--------------|
|   | Exports to. | Imports from. | Exports.     | Imports.     |
| Madagascar, .....                               | \$180,000   | \$40,000      | \$120,000    | \$240,000    |
| Ile de la Réunion, (for-<br>merly Bourbon), ... | 3,500,000   | 4,340,000     | 2,400,000    | 5,000,000    |
| British East Indies, ...                        | 1,260,000   | 8,240,000     | 3,060,000    | 19,180,000   |
| Dutch " .....                                   | 260,000     | 1,860,000     | 500,000      | 480,000      |
| Philippine Islands, ...                         | 60,000      | 380,000       | .....        | 160,000      |
| French "établisse-<br>ments" in India, ...      | 120,000     | 3,420,000     | 260,000      | 1,720,000    |
| China, Cochin China,<br>Japan and Oceanica,     | 1,000,000   | 340,000       | 5,420,000    | 20,800,000   |
|   | \$6,380,000 | \$18,620,000  | \$11,760,000 | \$47,580,000 |
| Exports, .....                                  | .....       | 6,380,000     | .....        | 11,760,000   |
| Exports and imports, .....                      | .....       | \$25,000,000  | .....        | \$59,340,000 |

## III. THE UNITED STATES OF AMERICA.

| COUNTRIES.                                     | In 1853.    |               | In 1868.     |              |
|--|-------------|---------------|--------------|--------------|
|  | Imports to. | Exports from. | Exports.     | Imports.     |
| British East Indies,...                        | \$556,209   | \$3,581,726   | \$647,440    | \$7,476,294  |
| Dutch " ...                                    | 383,706     | 384,583       | 144,263      | 1,903,875    |
| Philippine Islands,...                         | 65,375      | 2,465,083     | 56,202       | 3,963,684    |
| China, .....                                   | 3,736,992   | 10,573,770    | 11,691,490   | 11,335,024   |
| Australia, .....                               | 4,287,002   | ....          | 4,848,984    | 85,125       |
| Japan, .....                                   | ....        | ....          | 780,168      | 2,429,182    |
| Hawaian Islands,.....                          | ....        | ....          | 846,673      | 1,189,400    |
| South Sea Islands and<br>Pacific generally,... | 737,877     | 17,371        | 100,536      | 39,972       |
| Asiatic Russia,.....                           | ....        | ....          | 52,724       | 15,849       |
| Mauritius, .....                               | 3,338       | ....          | ....         | ....         |
|  | <hr/>       | <hr/>         | <hr/>        | <hr/>        |
| Exports,.....                                  | \$9,770,499 | \$17,022,533  | \$19,168,480 | \$28,488,405 |
|  |             | 9,770,499     | ....         | 19,168,480   |
|  |             | <hr/>         |              | <hr/>        |
| Exports and imports,.....                      |             | \$26,793,032  | ....         | \$47,656,885 |

## AGGREGATE EXPORTS AND IMPORTS OF THE THREE PRECEDING NATIONS.

| In 1853-4.   |               | In 1867-8.   |               |
|--------------|---------------|--------------|---------------|
| Exports,.... | \$161,158,389 | Exports,.... | \$279,548,875 |
| Imports,.... | 168,921,353   | Imports,.... | 392,559,075   |
|              | <hr/>         |              | <hr/>         |
|              | \$330,079,742 |              | \$672,103,650 |

## In 1867-8.

|                              |                            |               |
|------------------------------|----------------------------|---------------|
| IV. NETHERLANDS.....         | Exports and imports, ..... | \$51,500,550  |
| V. HAMBURGH AND BREMEN,..    | " " " .....                | 9,328,000     |
| VI. SPAIN, .....             | " " " .....                | 1,750,000     |
| VII. SWEDEN AND NORWAY,..... | " " " .....                | 460,060       |
|                              |                            | <hr/>         |
|                              |                            | \$735,141,550 |

*Note.*—There may also have been a comparatively unimportant amount of commerce on the Pacific and Indian Oceans, to and from Italy, Austria and Russia, not yet ascertainable.







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